

REMARKS

Claims 1-19 were presented for examination in the present application. The instant amendment cancels non-elected claims 3-4 without prejudice. Thus, claims 1-2 and 4-19 are pending for consideration upon entry of the instant amendment. Claims 1 and 15 are independent.

Claim 1 has been amended to correct an obvious grammatical error. Applicant submits that this amendment merely makes explicit what had been implicit in the claim.

Rejected under §103

Independent claims 1 and 15, as well as dependent claims 2, 5-14, and 16-19, were rejected under 35 U.S.C. §103(b) over U.S. Patent No. 4,877,745 to Hayes (Hayes) in view of U.S. Patent No. 6,296,811 to Sasaki (Sasaki).

Applicant respectfully traverses these rejections.

Independent claim 1 recites, in part, that "a damping pulse generated by the pulse generator **at the end of the series of droplets** for damping the postoscillation of the liquid dispensing device (emphasis added)".

The Office Action acknowledges that Hayes fails to disclose or suggest the claimed damping pulse. Rather, the Office Action asserts that Sasaki discloses a method designed to eliminate the production of undesired fluid responses to actuation.

Applicant respectfully disagrees.

First, Applicant respectfully submits that the Office Action has failed to meet its burden of establishing a *prima facie* case of obviousness because the Office Action has failed to determine the level of skill in the art.

Additionally, Applicant submits that the Office Action has based its conclusion of obviousness on a mis-characterization of the teachings of Sasaki.

Sasaki is based on the problem that the fluid will not only be forced in forward direction towards the nozzle but also backwards away from the nozzle at the same time. Therefore, Sasaki discloses that the ejection of droplets can be inefficient and may even be impossible. See col. 3, lines 4 to 11. Thus, the solution described Sasaki is to have two actuators, a dispensing actuator and a damping actuator. Here, the actuator having a larger distance from the nozzle as damping actuator and is timed to actuate **before** the dispensing actuator. In doing this, Sasaki discloses that impulses towards the nozzle are added so that backward movement of the liquid is avoided.

Applicant submits that the damping actuator of Sasaki, which requires two different actuators where one of these actuators is actuated **before** dispensing, fails to disclose or suggest the damping pulse of claim 1 that is generated by the same pulse generator and that occurs **at the end of the series of droplets**.

Further, Applicant submits that modification of Sasaki to actuate its damping actuator at the end of the dispensing instead of before the dispensing commences would render Sasaki unsuitable for its intended purpose. *See Ex parte Rosenfeld*, 130 USPQ 113, 115 (Bd. App. 1961) (modification that renders apparatus unsuitable for its intended purpose cannot be said to have been obvious to one of ordinary skill in the art).

Moreover, Applicant submits that Sasaki is non-analogous art such that the proposed combination of Hayes and Sasaki fails to disclose or suggest claim 1.

In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be

reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See also *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992) ("A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem."); *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993).

Again, Sasaki is based on the problem that the fluid will not only be forced in forward direction towards the nozzle but also backwards away from the nozzle at the same time. Therefore, Sasaki discloses activating a **second actuator** remote from the nozzle **before** the dispensing actuator is activated so that impulses towards the nozzle are added to the liquid.

The problem to be solved by claim 1, namely to dampen postoscillation using one actuator, differs completely from the problem described in Sasaki. To solve this problem, claim 1 generates a damping pulse **at the end** of the series of droplets using the same dispensing actuator. Thus, Applicant maintains that the problems to be solved between the present disclosure and that of Sasaki differ from each other. The disclosure of Sasaki would not logically have commended itself to an inventor's attention looking to resolve the postoscillation of claim 1.

Accordingly, Applicant submits that the Office Action has failed to establish a *prima facie* case of obviousness, has used non-analogous art in its rejection, and has failed to establish that every element recited by claim 1 is disclosed by the proposed combination of art. As such, Applicant submits that claim 1, as well as claims 2 and 5-14 that depend therefrom, are allowable over the proposed combination of cited art. Reconsideration and withdrawal of the rejection to claims 1-2 and 5-14 are respectfully

requested.

Independent claim 15, similar to claim 1 discussed in detail above, in part, recites the steps of "activating a pulse generator of the liquid dispensing device to generate an activating pulse, the activating pulse being configured to dispense a series of droplets" and "activating the pulse generator to generate a damping pulse at an end of the series of droplets for damping a postoscillation".

Applicant maintains that the proposed combination of Hayes and Sasaki fails to disclose or suggest activating the same pulse generator to dispense liquid and to dampen postoscillation by timing the dampening pulse at the end of the series of droplets as recited by claim 15.

Accordingly, claim 15, as well as claims 16-19 that depend therefrom, are allowable over the proposed combination of cited art. Reconsideration and withdrawal of the rejection to claims 15-19 are respectfully requested.

Summary

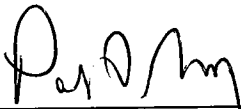
Applicant submits that the Office Action failed to make a *prima facie* case of obviousness of pending claims 1-2 and 5-19. Thus, it is respectfully submitted that any action finally rejecting the pending claims over the previously cited art alone would be premature in light of the Office Action's failure to present a *prima facie* case of obviousness.

In view of the above, it is respectfully submitted that the present application is in condition for allowance. Such action is solicited.

If for any reason the Examiner feels that consultation with Applicant's attorney would be helpful in the advancement of the prosecution, the Examiner is invited to call the telephone number below.

Respectfully submitted,

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